

FIG. 1

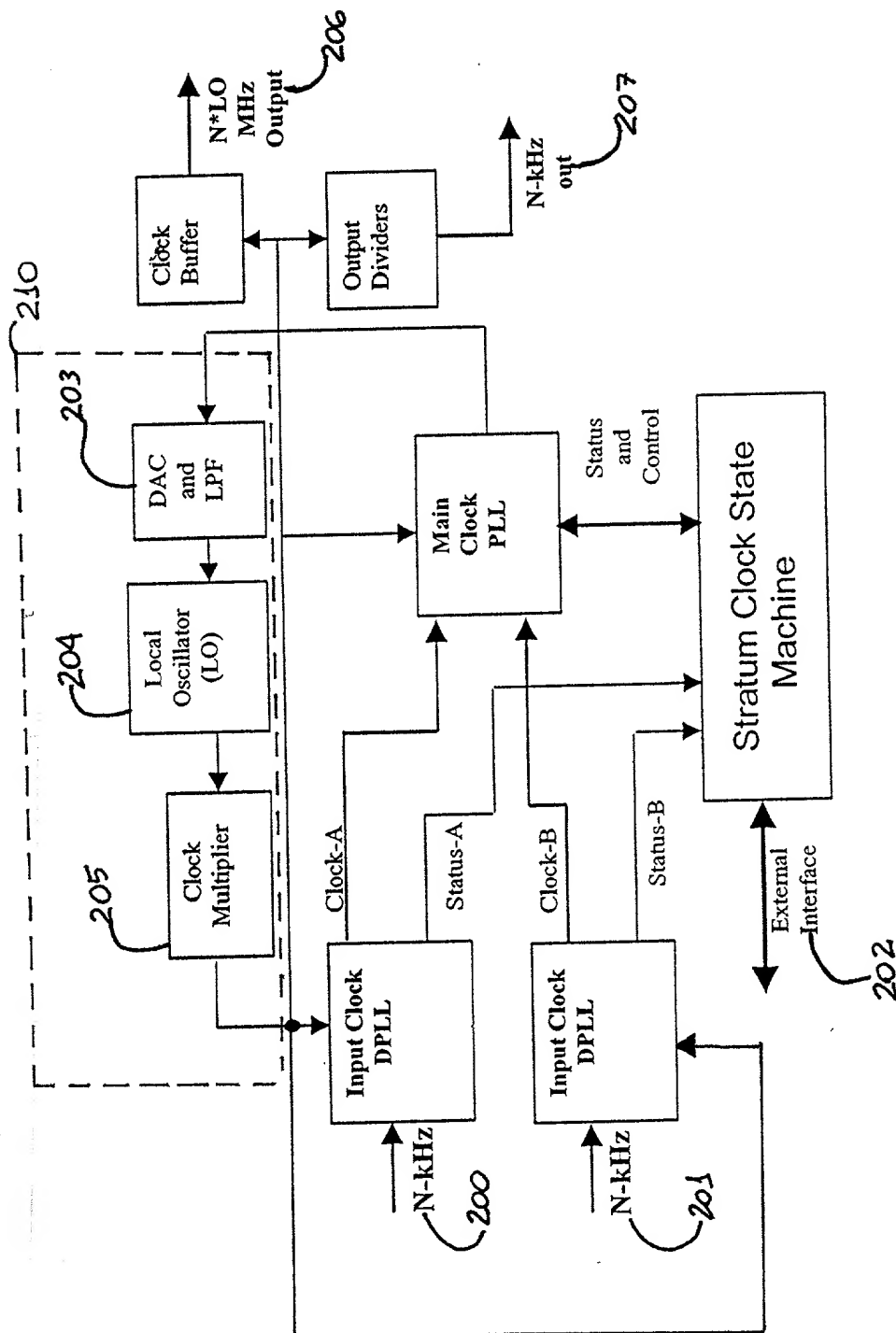


FIG. 2

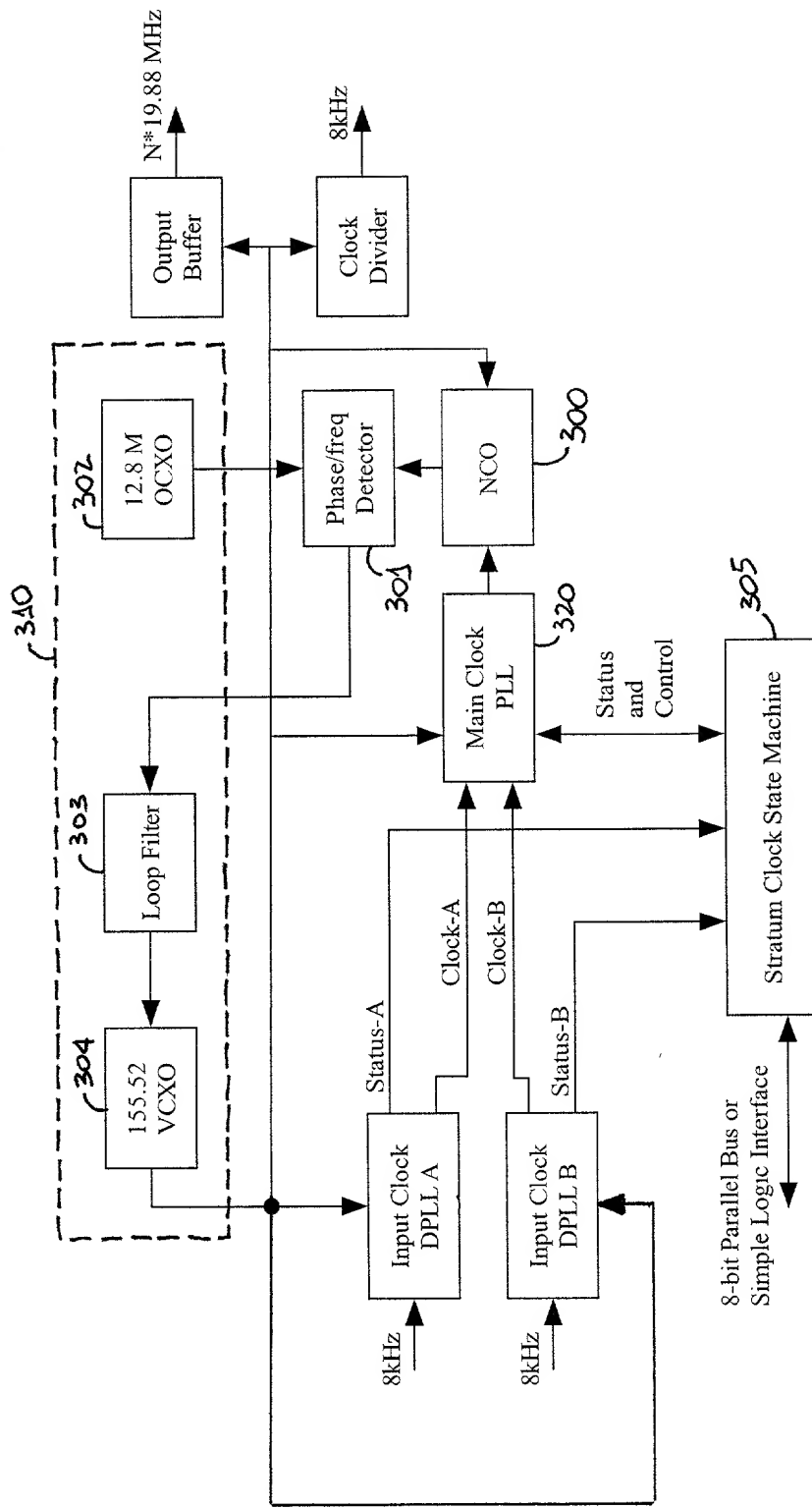


FIG. 3

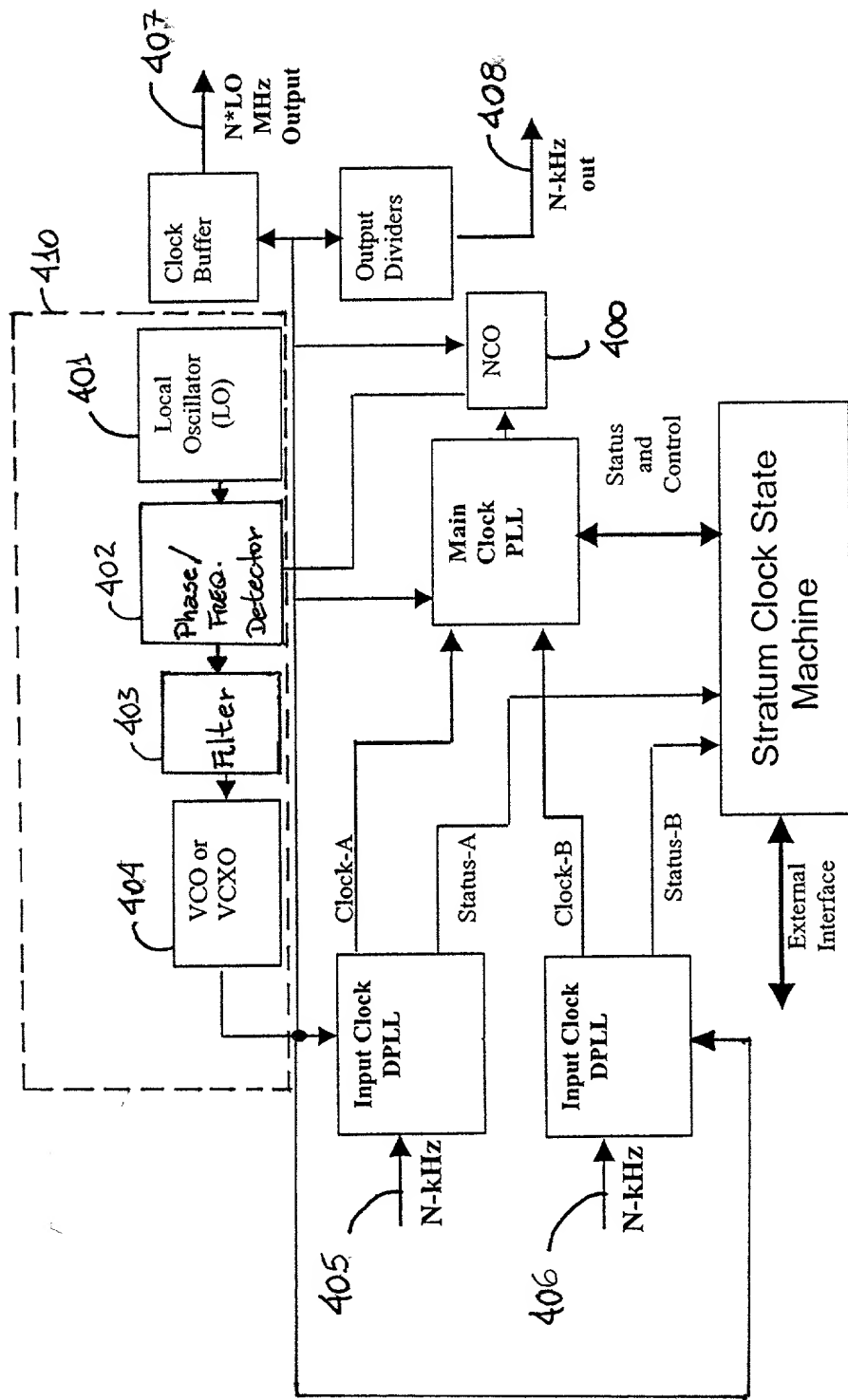


FIG. 4

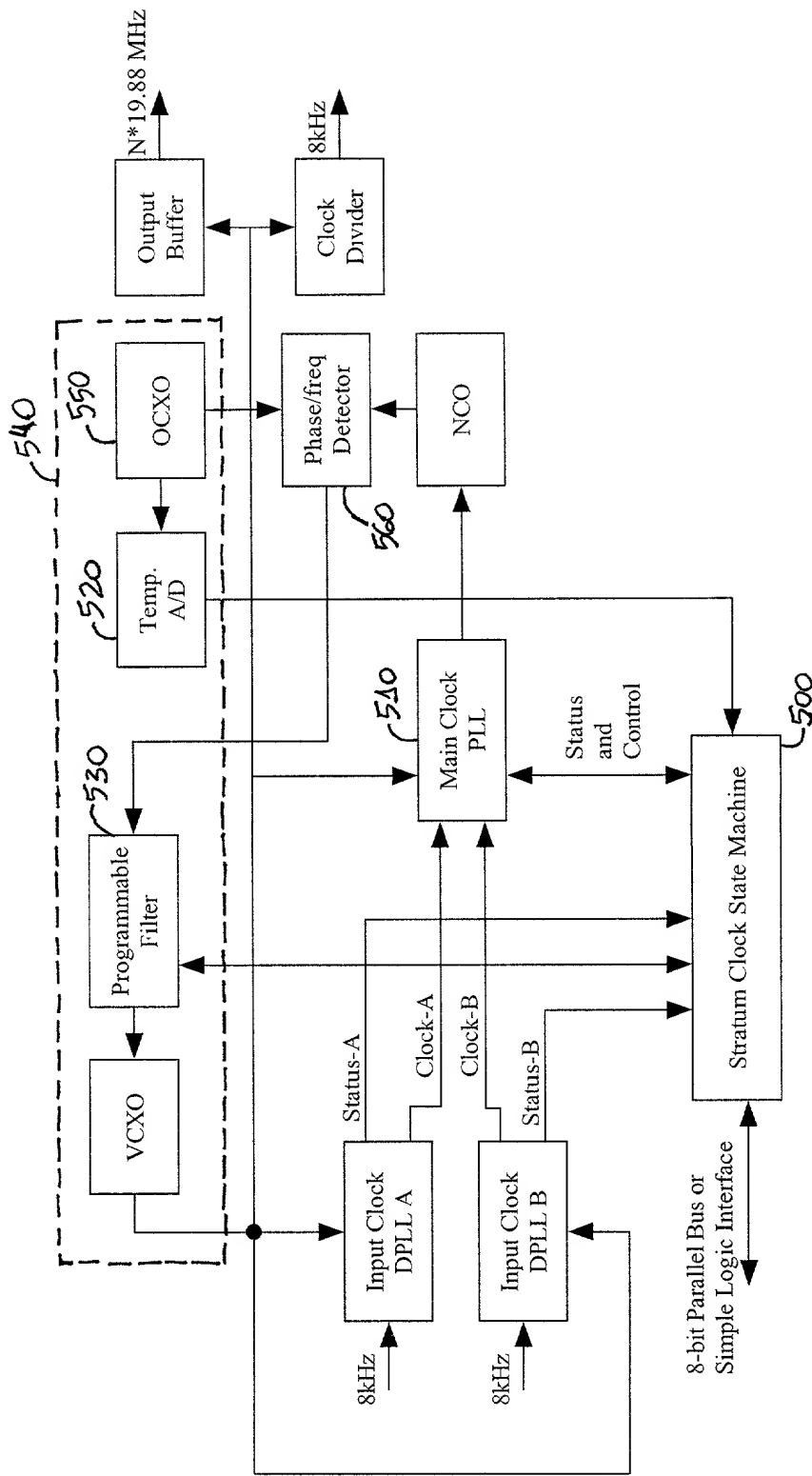


FIG. 5

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graph TD
    601((FREERUN  
PBO TIMER=5  
HOLD TIMER=0  
SKIP TIMER=0))
    604((HOLDOVER  
PBO TIMER=128  
HOLD TIMER=0  
SKIP TIMER=0))
    600((NORMAL  
PBO TIMER=0  
HOLD TIMER=0  
SKIP TIMER=0))
    603((OFFSET  
HOLD TIMER=0  
PBO TIMER=0  
SKIP TIMER=0))
    602((SWITCH  
UPDATE REF  
HOLD TIMER=0  
SKIP TIMER=0))

    601 -- "SEL = FREERUN" --> 601
    601 -- "HOLD OVER" --> 604
    604 -- "HOLD OVER" --> 604
    604 -- "REF SWITCH" --> 600
    604 -- "PBO TIMER=0" --> 600
    600 -- "HOLD OVER" --> 604
    600 -- "SEL = FREERUN" --> 601
    600 -- "FREQ OFFSET" --> 603
    600 -- "SKIP TIMER=1023" --> 603
    603 -- "SEL = FREERUN" --> 601
    603 -- "REF SWITCH" --> 602
    603 -- "PBO TIMER=5" --> 602
    602 -- "HOLD OVER" --> 604
    602 -- "SKIP COUNTER=1023" --> 603
    602 -- "SEL = FREERUN" --> 601
  
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Figure 1 is a state transition diagram for a PBO timer control system. The diagram shows five states: FREERUN (601), HOLDOVER (604), NORMAL (600), OFFSET (603), and SWITCH (602). Transitions are triggered by events like 'SEL = FREERUN', 'REF SWITCH', 'FREQ OFFSET', and 'SKIP TIMER'. Each state has associated timer values for PBO, HOLD, and SKIP timers.

- State 601 (FREERUN):** PBO TIMER=5, HOLD TIMER=0, SKIP TIMER=0. Transitions: SEL = FREERUN (self), HOLD OVER (to 604).
- State 604 (HOLDOVER):** PBO TIMER=128, HOLD TIMER=0, SKIP TIMER=0. Transitions: HOLD OVER (self), REF SWITCH (to 600), PBO TIMER=0 (to 600).
- State 600 (NORMAL):** PBO TIMER=0, HOLD TIMER=0, SKIP TIMER=0. Transitions: HOLD OVER (to 604), SEL = FREERUN (to 601), FREQ OFFSET (to 603), SKIP TIMER=1023 (to 603).
- State 603 (OFFSET):** HOLD TIMER=0, PBO TIMER=0, SKIP TIMER=0. Transitions: SEL = FREERUN (to 601), REF SWITCH (to 602), PBO TIMER=5 (to 602).
- State 602 (SWITCH):** UPDATE REF, HOLD TIMER=0, SKIP TIMER=0. Transitions: HOLD OVER (to 604), SKIP COUNTER=1023 (to 603), SEL = FREERUN (to 601).

FIG. 6